**AMENDMENTS TO THE CLAIMS** 

This listing of claims will replace all prior versions and listings of claims in the

application:

**LISTING OF CLAIMS:** 

1 - 8. (canceled).

9. (previously presented): A circuit board comprising a substrate and built thereon,

a circuit comprised of a copper film,

wherein said copper film comprises an electroplated layer and has properties that (a) its

crystallinity is such that the X-ray diffraction half-width of the (331) plane of copper is less than

0.3 deg. and (b) the variation in thickness ((maximum thickness-minimum thickness)/average

thickness) of said copper film as measured over the whole surface of said substrate is not greater

than 0.4.

10. (original): The circuit board according to Claim 9 wherein said copper film has

an elongation of not less than 7%.

11. (previously presented): A printed circuit board comprising a substrate and, built

thereon, a circuit comprised of a copper film,

wherein said copper film comprises an electroplated layer and has properties that (a) its

crystallinity is such that the X-ray diffraction half-width of the (331) plane of copper is less than

2

AMENDMENT UNDER 37 C.F.R. 1.111

Application No. 09/787,139

Attorney Docket No.: Q63452

0.3 deg. and (b) the variation in thickness ((maximum thickness-minimum thickness)/average

thickness) of said copper film as measured over the whole surface of said substrate is not greater

than 0.4.

12. (previously presented): A printed circuit board comprising a substrate formed

with a conductor circuit, an interlayer resin insulating layer thereon and a conductor circuit

comprised of a copper film on said interlayer resin insulating layer and having via holes by

which said conductor circuits are interconnected,

wherein said copper film comprises an electroplated layer and has properties that (a) its

crystallinity is such that the X-ray diffraction half-width of the (331) plane of copper is less than

0.3 deg. and (b) the variation in thickness ((maximum thickness-minimum thickness)/average

thickness) of said copper film as measured over the whole surface of said substrate is not greater

than 0.4.

13. (previously presented): The printed circuit board according to Claim 11 wherein

said copper film has an elongation of not less than 7%.

14 - 22. (canceled).

3

Attorney Docket No.: Q63452

AMENDMENT UNDER 37 C.F.R. 1.111

Application No. 09/787,139

23. (previously presented): A printed circuit board comprising a resin insulating

substrate board formed with a roughened surface and, built thereon by semi-additive process, a

conductor circuit comprising an electroless plated film and an electroplated film,

wherein said roughened surface comprises convex areas and concave areas, and said

electroless plated film is complementary to a surface of said roughened surface with said

electroless plated film in convex areas of said roughened surface being relatively greater in

thickness than said electroless plated film in concave areas of said roughened surface.

24. (canceled).

25. (previously presented): The printed circuit board according to Claim 23,

wherein said electroless plated film is a copper film which contains at least one metal

species selected from the group consisting of nickel, iron and cobalt.

The printed circuit board according to Claim 25 wherein the 26. (original):

proportion of said at least one metal species selected from the group consisting of nickel, iron

and cobalt is 0.1 to 0.5 weight %.

27 - 47. (canceled).

4

AMENDMENT UNDER 37 C.F.R. 1.111 Application No. 09/787,139 Attorney Docket No.: Q63452

48. (previously presented): The circuit board according to Claim 9, wherein said copper film is formed by constant-voltage pulse plating technique.

- 49. (previously presented): The printed circuit board according to Claim 11, wherein said copper film is formed by constant-voltage pulse plating technique.
- 50. (previously presented): The printed circuit board according to Claim 12, wherein said copper film has an elongation of not less than 7%.
- 51. (previously presented): The printed circuit board according to Claim 12, wherein said copper film is formed by constant-voltage pulse plating technique.
- 52. (previously presented): The printed circuit board according to Claim 23, wherein said electroless plated film is formed from an electroless plating solution comprising tartaric acid or a salt thereof.
- 53. (previously presented): The printed circuit board according to Claim 23, wherein said roughened surface comprises a primary anchor and a secondary anchor, said primary anchor having concave and convex parts and said secondary anchor being formed on the convex areas of said roughened surface.

AMENDMENT UNDER 37 C.F.R. 1.111 Application No. 09/787,139

Attorney Docket No.: Q63452

54 - 55. (canceled).

56. (previously presented): The printed circuit board according to Claim 25, wherein said electroless plated film comprises an alloy of copper and at least one metal species selected from the group consisting of nickel, iron and cobalt.

57 - 62. (canceled).

63. (previously presented): The printed circuit board according to claim 23, wherein said electroless plated film has a stress of 0 to  $+10 \text{ kg/mm}^2$ .

64 - 67. (canceled).